<u>IN THE SPECIFICATION</u>:

Page 1, the title has been changed from the International application to read:

--   NET LIST CONVERSION METHOD, NET LIST CONVERSION APPARATUS,
       STATIONARY THROUGH CURRENT DETECTION METHOD, AND
       STATIONARY THROUGH CURRENT DETECTION APPARATUS -- .

Page 1, after the title and before the first line of the specification, insert the following paragraph:

--The present application is based on International Application PCT/JP2004/007006, filed May 17, 2004, which application is incorporated herein by reference in its entirety.--

Page 9, replace lines 1-11, amended as follows:

--detection target net list, and storing the extracted net in a extracted net database which is provided for each of MOS transistors having different threshold values; and a resistor insertion step of inserting a resistor element having a <u>high</u> <u>resistance value which does not affect the operations of</u> <u>circuits other than the extracted MOS transistor</u> ~~unique resistor~~ ~~element name~~, between the extracted net that is connected to the gate terminal of the extracted MOS transistor and a power supply that is determined for each threshold value of the MOS transistor, and between the extracted net and a reference voltage, <u>respectively,</u> in the detection target net list, on the basis of the extracted net database that is provided for each of the MOS transistors having different threshold values.--

-2-

Page 12, replace lines 6-19, amended as follows:

--Further, the net list conversion method of the present
invention further includes an overlapping net deletion step of
deleting a net that overlaps in each extracted net database,
among the nets extracted in the net extraction step and stored
in the extracted net database which is provided for each of MOS
transistors having difference threshold values, and the resistor
insertion step inserting [[a]] the resistor element ~~having a
unique resistor element name~~, between the net connected to the
gate terminal of the MOS transistor and the power supply that is
determined for each threshold value of the MOS transistor, and
between the net and the reference voltage, respectively, in the
detection target net list, on the basis of the extracted net
database from which the overlapping net is deleted by the
overlapping net deletion step.--

Page 14, replace lines 1-15, amended as follows:

--transistor; and a sub-circuit addition step of adding, into
the detection target net list, sub-circuit information of the
sub-circuit with which the MOS transistor is replaced; and the
sub-circuit information includes a MOS transistor according to a
threshold value and type of the MOS transistor that is replaced
with the sub-circuit, and resistor elements each having a
resistance value that does not affect the operations of circuits
other than the MOS transistor, the resistor elements being
inserted between the gate terminal of the MOS transistor and a
power supply according to the threshold value of the MOS
transistor, and between the gate terminal of the MOS transistor
and a reference voltage, respectively.

Therefore, whether the stationary-state through current detection target circuit is an analog CMOS circuit or a CMOS logic circuit, it is possible to reliably detect a position where through current might flow in stationary state. Further, it is possible to fix a gate terminal of a MOS transistor in which through current might flow, to a voltage between the power supply and the reference voltage. Further, it is possible to insert a resistor element in a position where through current might occur, in the through current detection target circuit. Furthermore, with respect to the net list converted by the net list conversion method, resistor elements are added in the net list while maintaining the net list before the conversion, whereby the construction of the detection target circuit can easily be known from the net list after the net list conversion.--

Page 15, delete line 20 through page 16, line 6:

~~Further, in the net list conversion method of the present invention, the sub-circuit addition step adds the sub-circuit information to the detection target net list; and the sub-circuit information includes a MOS transistor according to the threshold value and type of the MOS transistor that is replaced with the sub-circuit, and a resistor element that is inserted between the gate terminal of the MOS transistor and a power supply according to the threshold value of the MOS transistor, and between the gate terminal of the MOS transistor and a reference voltage.~~

~~Therefore, it is possible to insert a resistor element in a position where through current might occur, in the through current detection target circuit.~~

-4-

Page 16, replace lines 7-25, amended as follows:

--Further, a net list conversion method of the present invention comprises: a net list designation step of designating a net list to be subjected to detection of through current in a stationary state; a first net extraction step of extracting a net connected to a gate terminal of a MOS transistor from the detection target net list, and storing the extracted net in an extracted net database which is provided for each of MOS transistors having different threshold values; a second net extraction step of extracting a net connected to an input terminal of a sub-circuit from the detection target net list, and storing the extracted not in an extracted net database which is provided for each of the MOS transistors having different threshold values; and a resistor insertion step of inserting a resistor element having a high resistance value which does not affect the operations of circuits other than the MOS transistor or the sub-circuit ~~unique resistor element name~~, between the net extracted in the first net extraction step and the second net extraction step and a power supply, and between the extracted net and a reference voltage, respectively, in the detection target net list, on the basis of the extracted net database that is provided for each of the MOS transistors having different threshold values.--

Page 18, replace lines 1-7, amended as follows:

--inserting [[a]] the resistor element ~~having a unique resistor element name~~, between the net extracted in the first net extraction step and the second net extraction step and the power supply, and between the extracted net and the reference voltage, respectively, in the detection target net list, on the basis of

-5-

the extracted net database from which the overlapping net is
deleted in the overlapping net deletion step.--

Page 19, replace lines 1-14, amended as follows:

--sub-circuit database in which specific sub-circuit is entered;
and the resistor insertion step inserts a resistor element
having a high resistance value which does not affect the
operations of circuits other than the MOS transistor ~~unique~~
~~resistor element name~~, between the net extracted in the first
net extraction step and the power supply, and between the
extracted net and the reference voltage, respectively, in the
detection target net list, on the basis of the extracted net
database that is provided for each of the MOS transistors having
different threshold values, and inserts a resistor element
having a high resistance value which does not affect the
operations of circuits other than the sub-circuit ~~unique~~
~~resistor element name~~ between a net other than a net included in
a sub-circuit that is determined as being entered in the sub-
circuit database in the comparison step among the sub-circuits
extracted in the second net extraction step, and the power
supply, and between the net and the reference voltage,
respectively, in the detection target net list.--

Page 20, replace lines 1-12, amended as follows:

--connected to a gate terminal of a MOS transistor from the
detection target net list, and storing the extracted net in a
extracted net database which is provided for each of MOS
transistors having different threshold values; and a resistor
insertion unit for inserting a resistor element having a high
resistance value which does not affect the operations of

-6-

circuits other than the extracted MOS transistor ~~unique resistor~~ ~~element name~~, between the extracted net that is connected to the gate terminal of the extracted MOS transistor and a power supply that is determined for each threshold value of the MOS transistor, and between the extracted net and a reference voltage, <u>respectively,</u> in the detection target net list, on the basis of the extracted net database that is provided for each of the MOS transistors having different threshold values.--

Page 21, replace lines 1-8, amended as follows:

--insertion unit inserting [[a]] <u>the</u> resistor element ~~having a~~ ~~unique resistor element name~~, between the net connected to the gate terminal of the MOS transistor and the power supply that is determined for each threshold value of the MOS transistor, and between the net and the reference voltage, <u>respectively,</u> in the detection target net list, on the basis of the extracted net database from which the overlapping net is deleted by the overlapping net deletion unit.--

Page 22, replace lines 1-6, amended as follows:

--stationary state; a sub-circuit replacement unit for replacing a MOS transistor in the detection target net list with a sub-circuit according to a threshold value and type of the MOS transistor; and a sub-circuit addition unit for adding, into the detection target net list, sub-circuit information of the sub-circuit with which the MOS transistor is replaced<u>; and the sub-</u> <u>circuit information includes a MOS transistor according to a</u> <u>threshold value and type of the MOS transistor that is replaced</u> <u>with the sub-circuit, and resistor elements each having a</u>

resistance value that does not affect the operations of circuits other than the MOS transistor, the resistor elements being inserted between the gate terminal of the MOS transistor and a power supply according to the threshold value of the MOS transistor, and between the gate terminal of the MOS transistor and a reference voltage, respectively.--

Page 23, replace lines 4-22, amended as follows:

--Further, a net list conversion apparatus of the present invention comprises: a net list designation unit for designating a net list to be subjected to detection of through current in a stationary state; a first net extraction unit for extracting a net connected to a gate terminal of a MOS transistor from the detection target net list, and storing the extracted net in an extracted net database which is provided for each of MOS transistors having different threshold values; a second net extraction unit for extracting a net connected to an input terminal of a sub-circuit from the detection target net list, and storing the extracted not in an extracted net database which is provided for each of the MOS transistors having different threshold values; and a resistor insertion unit for inserting a resistor element having a high resistance value which does not affect the operations of circuits other than the MOS transistor or the sub-circuit unique resistor element name, between the net extracted by the first net extraction unit and the second net extraction unit and a power supply, and between the extracted net and a reference voltage, respectively, in the detection target net list, on the basis of the extracted net database that is provided for each of the MOS transistors having different threshold values.--

-8-

Page 24, replace lines 8-21, amended as follows:

--Further, the net list conversion apparatus of the present invention further includes an overlapping net deletion unit for deleting a net that overlaps in each extracted net database, among the nets extracted by the first net extraction unit and the second net extraction unit and then stored in the extracted net database which is provided for each of MOS transistors having difference threshold values; and the resistor insertion unit for inserting [[a]] the resistor element having a unique resistor element name, between the net extracted by the first net extraction unit and the second net extraction unit and the power supply, and between the extracted net and the reference voltage, respectively, in the detection target net list, on the basis of the extracted net database from which the overlapping net is deleted by the overlapping net deletion unit.--

Page 31, replace lines 1-10, amended as follows:

--provided for each of MOS transistors having different threshold values; and a resistor insertion step of inserting a resistor element having a high resistance value which does not affect the operations of circuits other than the extracted MOS transistor unique resistor element name, between the extracted net that is connected to the gate terminal of the extracted MOS transistor and a power supply that is determined for each threshold value of the MOS transistor, and between the extracted net and a reference voltage, respectively, in the detection target net list, on the basis of the extracted net database that is provided for each of the MOS transistors having different threshold values.--

Page 32, replace lines 1-3, amended as follows:

--addition step of adding, into the detection target net list, sub-circuit information of the sub-circuit with which the MOS transistor is replaced; and the sub-circuit information includes a MOS transistor according to a threshold value and type of the MOS transistor that is replaced with the sub-circuit, and resistor elements each having a resistance value that does not affect the operations of circuits other than the MOS transistor, the resistor elements being inserted between the gate terminal of the MOS transistor and a power supply according to the threshold value of the MOS transistor, and between the gate terminal of the MOS transistor and a reference voltage, respectively.--

Page 33, replace lines 1-10, amended as follows:

--detection target net list, and storing the extracted not in an extracted net database which is provided for each of the MOS transistors having different threshold values; and a resistor insertion step of inserting a resistor element having a high resistance value which does not affect the operations of circuits other than the MOST transistor or the sub-circuit ~~unique resistor element name~~, between the net extracted in the first net extraction step and the second net extraction step and a power supply, and between the extracted net and a reference voltage, respectively, in the detection target net list, on the basis of the extracted net database that is provided for each of the MOS transistors having different threshold values.--